ABSTRACT

A micro-electromechanical fluid ejection device includes a substrate that defines a plurality of fluid supply channels and a plurality of chambers in fluid communication with respective fluid supply channels. A drive circuitry layer is positioned on the substrate. A plurality of roof structures is connected to the drive circuitry layer to cover respective fluid chambers. Each roof structure defines a fluid ejection port. At least one actuator is positioned in each roof structure. Each actuator is electrically connected to the drive circuitry layer to be displaceable into and out of its respective chamber to eject a drop of fluid from the fluid ejection port.